EXHIBIT 1

report

September 2005

Solid Waste Permit Application
Volume 1/2

Site Analysis
Perry County Associates Landfill
Perry County, Alabama

Prepared for

Alabama Department of
Environmental Management

Perry County Associates, L.L.C.

JORDAN
JONES &
GOULDING

working to better our communities and environment

4305_001cov.fh11

SECTION 3
Hydrogeologic Evaluation

Overview

This section presents the results of an information and literature review and site-specific evaluation to characterize the geology and hydrogeology of the PCA landfill site and vicinity. This information is provided to meet the requirements of ADEM Chapter 335-13-4-.11(2), 335-13-4-12-.12(2)(b), 335-13-4-.13, and 335-13-4-.14. A description of the site setting, regional geology, and regional hydrogeology is provided, based on a review of technical literature and publications, primarily from the Geological Survey of Alabama. A description of the site geology and hydrogeology, which is based on an investigation conducted in February through May 2001, is also provided. Additionally, in an effort to confirm that site conditions have not changed significantly since the time of the initial hydrogeological investigation, water levels were recorded in January and May of 2005. A discussion concerning the updated water level elevations is provided below.

Site Setting

The PCA landfill site is located in the west-central position of the Black Prairie Belt physiographic province of the East Gulf Coastal Plain in Alabama (Szabo, 1973). The Black Prairie Belt is characterized by gently rolling to hilly topography, which is strongly influenced by the attitude and geology of the underlying bedrock formations. Erosion caused by numerous small draws, creeks, and rivers has also influenced topography.

Perry County is divided by two major drainages, the Alabama River to the east and Tombigbee River to the west. The PCA landfill site is located in the Alabama River drainage. Tayloe Creek, which is located along the northern edge of the site flows east to become a tributary of Mud Creek, then Boque Chitto Creek, then into the Cahaba River which flows into the Alabama River.

The topography of the PCA landfill site is gently sloping northward from elevations of about 290 feet along County Road 1 toward Tayloe Creek, elevation 180 feet. Numerous emphemeral draws have developed on the site as the result of erosion from surface water. Dikes were constructed in the past across some of the draws to collect surface water and create stock tanks for grazing animals. Four shallow tanks remain on the property which are shown on Figure 2. Almost all of the emphemeral draws on site drain to Tayloe Creek, which is the only perennial stream identified at the PCA landfill site. One small drainage flows from the site southward beneath County Road 1. Several minor drainages flow eastwardly from the site, and several to the west.

Regional Geology

This section provides a summary of the regional geology for the vicinity of the PCA landfill site. The information provided is largely from the GSA Map 118 (and accompanying text) *Geology of Perry County, Alabama* (Reed, 1972). The general stratigraphy of Perry County comprises geologic units of Upper Cretaceous age in some places overlain by Quaternary alluvium (Figure 3). A description of the principle geologic units present in Perry County is provided on Figure 5. The upper Cretaceous rocks strike northwestward and dip southwestward a rate of about 35 to 50 feet per mile. The quaternary deposits are primarily sand and gravel occurring as low terrace and alluvial deposits, along drainages and stream courses, and range from 0-50 feet thick.

The upper Cretaceous rocks are primarily clays and chalks of the Selma Group, which comprises the Ripley Formation, Demopolis chalk, Arcola Limestone Member, and Mooreville chalk. The Ripley Formation is a sandy, micaceous, fossiliferous clay that ranges in thickness from 0 to 40 feet in Perry County. The Ripley Formation is not present on the PCA site but does crop out in extreme southern Perry County. The Mooreville chalk is light gray fossilferous and argillaceous and ranges in thickness from 0 to 400 feet in Perry County. The Arcola limestone is a relatively thin (10 to 20 feet) fossiliferous glauconitic limestone that separates the Mooreville from the Demopolis chalk. The Demopolis chalk is light gray sandy argillaceous and fossilferous and ranges in thickness from 0 to over 600 feet in Perry County.

The Selma Group is uncomfortably underlain by the Eutaw Formation and the Tuscaloosa Group also of Upper Cretaceous Age. The Eutaw Formation comprises micaceous glauconitic sands, which range in thickness from 0 to over 400 feet. The Eutaw Formation crops out in the northern portion of Perry County (Figure 3).

The Tuscaloosa Group comprises the Gordo and Coker Formations, which underlay the Eutaw Formation. Tuscaloosa Group sediments are sands, gravels, and carbonaceous sand, clays, which range in total thickness from 400 to over 1,100 feet.

Regional Hydrogeology

This section provides a summary of the regional hydrogeology for the vicinity of the PCA landfill site. The information provided is largely from the GSA map 127 (and accompanying text) *Water Availability in Perry County*, Alabama (Reed, et al 1972). Large quantities of groundwater have been produced from wells which tap the deep sand and gravel aquifers of the Eutaw, Gordo, and Coker Formations. Groundwater has not been identified in the thick Selma Group chalks (Dempolis and Mooreville); however, small quantities of groundwater are reportedly available in the Ripley Formation (Figure 5). Locally, a zone of saturation may develop in the upper weathered zone (0-60 feet) of the chalks. Sand and gravel beds in low-lying areas which are hydraulically connected to streams have also been identified as locally productive aquifers. Figure 5 includes descriptions of

the water-bearing characteristics of the geologic units present in Perry County, and water quality yielded from wells.

Wells tapping Upper Cretaceous deposits range in depth from 20 to over 1,000 feet deep. Well yields range from 0.5 to 3 million gallons per day. Wells which are located in the southwestern portion of Perry County are deepest but have the greatest potential yield. The Upper Cretaceous aquifers are confined and the potentiometric surface rises to within 40 to 300 feet of the ground surface. Despite this vertical upward gradient in the Eutaw Formation, no evidence of interconnection between the Eutaw Aquifer and Selma Group chalks, or local alluvial aquifers has been identified in the literature on Perry County hydrogeology. The Eutaw, Coker, and Gordon Formations crop out in the northern portion of Perry County. Aquifer recharge occurs in these outcrop areas from the average 55 inches of annual rainfall. Regional hydraulic gradients range from 40 to 50 feet per mile.

The town of Uniontown operates wells that produce groundwater from the Eutaw Formation aquifer. The wells range in depth from 915 to 1,300 feet (Reed et al, 1972). Water from the wells is used by the Uniontown Utilities District, which supply water to residences and businesses in southern Perry County.

Only one spring was identified in Perry County by the GSA (Reed, et al, 1972). The spring flows from the Eutaw Formation where the formation crops out, about 14 miles north of the PCA landfill site.

Site Characterization

A detailed site-specific study was performed to characterize the geology and hydrogeology of the PCA landfill site. The study was performed to meet the requirements of ADEM Chapter 335-13-4-.13(1) and (2)(a), and 335-13-4-.14(1)(b)(1). The scope of the study included:

- characterizing the geology of the site by advancing seven borings to depths of up to 600 feet;
- collecting and describing samples of soil and bedrock encountered during drilling;
- laboratory testing of selected geologic samples to determine soil characteristics including permeability;
- site reconnaissance by a qualified geologist to observe surface geologic features;
- completing piezometers in each of the seven borings advanced at the site to characterize the uppermost saturated zone and uppermost aquifer at the site;
- measuring and recording water levels in the piezometers to characterize the highest measured groundwater level, as required by Chapter 335-13-4-.11(2)(a);
- performing and analyzing the results of *in situ* well tests to characterize aquifer hydraulic conductivity;

- surveying piezometer location and datum elevations to mean sea level (North American Datum (NAD) 1983);
- preparing geologic cross sections using data from surface geology and subsurface geology (borings);
- developing a potentiometric surface map to characterize the hydraulic gradient (direction and flow rate); and
- a review of available geologic information pertinent to the PCA site from sources such as the Geological Survey of Alabama (GSA);
- Excavated trenches for the purposes of evaluating subsurface soil conditions

The results of the study are summarized and discussed in the sections that follow.

Site Geology

The geology of the PCA landfill site is consistent with descriptions of the regional geology from the GSA, based on the results of the study conducted for this report. Upper Cretaceous Demopolis chalk crops out in some places on site, and with the exception of thin alluvial deposits in stream channels, is the only formation exposed at the site surface. The Ripley Formation is not present at the PCA landfill site. Mooreville chalk underlies the Demopolis chalk. The Arcola Limestone Member, which is described by Reed (1972) as upper member of the Mooreville chalk separating the Demopolis and Mooreville chalks, was not identified in borings at the PCA landfill site. As such, the thickness of each chalk cannot be readily estimated. The total thickness of the Selma Group at the PCA site ranged from 500 feet in boring DW-3 to 570 feet in DW-1. The Selma Group chalks encountered in borings is characterized as dry, light gray to light greenish gray, silty, slightly pyritic, and occasionally jointed. Boring logs are provided in Appendix G.

On May 9, 2001, a site reconnaissance was performed by a JJG senior geologist to observe surface geological features such as soil type, bedrock outcrops, possible faulting, sinkholes, springs, streams, or man-made feature which could affect geology. In addition to site reconnaissance, the subsurface geology was characterized by advancing a total of seven borings at the site. In February 2001, PCA retained Allen & Willis to drill three deep borings through the Selma Group chalks and install piezometers to measure groundwater levels in the Eutaw Formation. Allen & Willis also advanced two borings into the uppermost Demopolis chalk, and installed shallow piezometers. In May 2001, three additional shallow borings were advanced into the Demopolis chalk and piezometers installed. The three additional borings and piezometers were installed by QORE Property Science of Duluth, Georgia, and the drilling activities and geology recorded by a JJG geologist. Undisturbed (Shelby-tube) samples were collected for laboratory testing to characterize the soil/rock type encountered during drilling for the three additional piezometers installed in May 2001.

Two geologic cross sections were developed using information obtained from drilling activities. The locations of the section transects are shown on Figure 6. Section A-A' (Figure 7) is oriented parallel to regional strike of the Selma Group chalks, i.e., northwest – southeast (Reed 1972). The geology depicted on the section is consistent with interpretations reported for the Perry County and west-central Alabama (Reed, 1972; Beg 1985; and Szabo, 1972). The Demopolis chalk and underlying Mooreville chalk have a combined thickness of about 530 feet. These formations were described from drill cuttings as light gray to medium-yellowish gray fossiliferrous chalk, chalky marl, and clayey chalk. Examination of Shelby tube and split spoon samples of the chalk and marl indicated presence of pyrite and occasional fractures or jointing, and possible thin bedding or laminations. Three of the seven borings were advanced through the Selma Group to the underlying Cretaceous Eutaw Formation. The Eutaw Formation was encountered in deep borings underlying the Mooreville chalk. The boring penetrated only the upper 30 feet of the Eutaw, which consisted of clayey sand and gravel underlain by sand. According to Reed et al (1972), the Eutaw Formation ranges from 300 to 400 feet thick in the southern portion of Perry County where the PCA landfill site is located.

Geologic cross-section B-B' (Figure 8) intersects Section A-A' at boring SW-2. Section B-B' is oriented northeast-southwest, along regional dip for the upper Cretaceous formations in west-southwest Alabama. The contact between the Mooreville chalk and Eutaw Formation is inferred from deep borings, DW-1 and DW-3. The dip of this contact is approximately 0.005 feet/feet or about 27 feet per mile. This attitude is slightly less than, but consistent with regional dips for the Upper Cretaceous formations, which ranges from 35 to 50 feet per mile (Reed, 1972).

On July 27, 2001, representatives of the Alabama Department of Environmental Management (ADEM), accompanied by Leo Gentile, P.G. of JJG, conducted a reconnaissance of the Perry County Associates, Inc. (PCA) landfill site. ADEM requested the site visit to excavate trenches to assess subsurface soil conditions, examine surface drainages for presence of water, and measure and record groundwater levels in existing piezometers at the site.

A rubber-tired backhoe and operator was arranged to be on site by PCA. Trench locations were selected by ADEM and are shown schematically on the attached Figure 2. Each trench was excavated through soil residuum into weathered chalk to the maximum attainable by the equipment until the weathered chalk was too hard to be excavated. A summary of the trench depth and conditions are provided below. All trenches were left open for a period of about one hour and were observed to be dry. Trenches were backfilled the same day.

Trench Number	Total Depth (ft)	Remarks
1	9	0-3 ft: gray weathered chalk residuum 3-9 ft: tan to gray weathered chalk, dry
2	11.5	0-9 ft: weathered brown clay (chalk residuum) 9-11.5 ft: slightly moist and gray massive clay (slightly weathered chalk)
3	11.5	0-3 ft: rust reddish-brown clayey soil 3-10 ft: tan weathered chalk, moist 10-11.5 ft: light gray, partially weathered chalk, moist

Site Hydrogeology

The site hydrogeology was characterized using the information on site geology described previously together with water level data from piezometers installed at the site, slug tests, and laboratory soil testing. In accordance with ADEM Chapter 335-13-4-.11(2)(a), depth to groundwater level was measured and recorded in February, March, and April 2001, with no two consecutive measurements made less than 12 days apart, to establish the seasonal high groundwater elevation (Table 3). To update this report, additional groundwater level measurements were made on January 20, 2005 and on May 19, 2005. Table 3 has been updated with the additional water level measurements. A description of the uppermost aquifer and other pertinent site hydrogeological data is provided in the paragraphs that follow.

The uppermost aquifer identified at the PCA landfill site is the Upper Cretaceous Eutaw Formation. Stratigraphically below the Eutaw Formation are the Gordo Formation and the Coker Formation (Figure 5). As described in the regional hydrogeological setting discussion, groundwater occurs in the Eutaw Formation under confined conditions. The confining unit is the 500 to 600-foot thick Selma Group chalks. The potentiometric surface for the Eutaw Formation ranges from an elevation of about 100 feet in the southern portion of the site to about 140 feet in the northeastern corner of the site. The highest groundwater elevations measured during the required three months was recorded on March 15, 2001 (Table 3). It should be noted that the highest groundwater elevations recorded at the site, to date, were recorded on March 15, 2001. The hydraulic gradient is 0.004 toward the southwest, based on the contours on Figure 9. Recharge to the Eutaw Formation is from precipitation infiltrating its outcrop area located 12 to 15 miles north and hydraulically up gradient of the PCA landfill site.

Five piezometers were installed in borings advanced at the site to depths of about 60 feet each. Damp or wet soil was rarely encountered during drilling of these borings. Several attempts were made to measure water levels in each piezometer. The results are summarized on Table 3. Field

notes recorded during field activities indicate that fluids measured inside the PVC well casing was remnant drilling fluids and/or water used to hydrate bentonite seals. Fluid levels in piezometers SW-1 and SW-2 remained about the same in February and March 2001, then fell to the bottom of the well. One anomalous value was recorded in May 2001 in SW-2, which may be the result of water used for well construction entering the well screen. Fluid levels were initially recorded at the time of installation in piezometers P-1 through P-3, and with time each became dry and remained dry until July 2001.

Given that piezometers P-1 through P-3 remained dry for an extended period, it was reported in the March 2002 Site Acceptability Report that a zone of saturation was not encountered in the uppermost Demopolis chalk at the PCA landfill site. However, between July 2001 and May 2005, groundwater water infiltrated piezometers P-1 through P-3. Table 3 has been updated to include the most recent water level measurements taken at the proposed site. Given the length of time in which the piezometers remained dry, it is believed that the water level values obtained at the groundwater level monitoring points are anomalous. The infiltrating groundwater may be attributed to the construction of each of the monitoring points. For each of these piezometers, the top of the well screen lies at approximately ten feet below ground surface. It is possible that the long screen length and relatively shallow top of screen depth has contributed to soil moisture or surface water entering these wells, and the extremely low permeability values encountered in the Demopolis chalk may explain why the infiltrating groundwater does not readily drain from the piezometers.

No springs or seeps were identified on site. Due to the depth to the potentiometric surface (i.e., greater than 100 feet), and the relatively low permeability of the Selma Group chalks (i.e., less than 1×10^{-8} cm/sec – see Table 4), the potential for springs to develop is considered to be low at the PCA landfill site.

Undisturbed samples of the Demopolis chalk were collected to characterize the geotechnical properties of the material for laboratory testing by QORE Property Science. Undisturbed samples were collected during drilling borings for piezometers P-1, P-2, and P-3, by driving a Shelby tube. Samples were collected from depths ranging from about 28 to 40 feet. Once the samples were driven and retrieved, the ends of the tubes were sealed with melted paraffin, and the tube ends wrapped in aluminum foil. Laboratory testing included:

- Atterberg Limits (ASTM D422)
- Natural Moisture Content (ASTM D2216)
- Unified Soil Classification (ASTM D2487)
- Specific Gravity (ASTM D854)
- Organic Content (ASTM D2974)
- Cation Exchange Capacity
- Dry Density
- Vertical Permeability (ASTM D5084)

The results of the testing are summarized on Table 4 and the laboratory report is provided in Appendix I.

The samples were similar in characteristics although each was collected from a boring located in different portions of the site. Based on the testing results, the chalk is characterized as a high plasticity clay (CH) with relatively low natural moisture content and low organic content. Permeability is also relatively low ranging from 2.5 x 10^{-8} cm/sec to 7.3 x 10^{-9} cm/sec. The chalk is therefore considered to be an effective confining layer and no indication of saturated conditions was identified.

To date, the highest groundwater level elevations, measured in the Eutaw Aquifer, occurred on March 15, 2001. Thus, for landfill design purposes, the high groundwater level elevations recorded in March 2001 represent the most conservative values to be obtained from site conditions. As such, the design of the landfill, as well as the following figures and hydrogeological discussion, will continue to be based upon those values.

Groundwater levels measured in the Eutaw Aquifer are included on the geologic cross sections (Figures 7 and 8). As shown on the cross sections, the potentiometric surface for the Eutaw Formation aquifer ranges in elevation from about 100 to 140 feet, or to within 100 to 280 feet below ground surface (Figure 9). Design specifications for the PCA landfill include excavating in portions of the site to depths of up to 20 feet. As shown on the sections, a minimum separation of 50 feet exists between the proposed base of the landfill and the seasonal high potentiometric surface. Furthermore, approximately 500 feet of dry very low permeability Selma Group chalk will separate the landfill disposal cells from the upper most aquifer. No evidence of interconnection between the Eutaw Aquifer and overlaying Selma Group chalks was identified at the PCA landfill site.

The hydraulic conductivity of the Upper Eutaw Formation aquifer was evaluated by performing in situ (slug) tests in the three piezometers installed to the Eutaw. Tests were performed by a JJG geologist on May 2 and 3, 2001, utilizing an In Situ Model 3000 data logger and pressure transducer. Results of test analyses are provided in Appendix H. Due to the presence of clayey sand in the screened portion of the aquifer, hydraulic conductivity is considered to be relatively low, ranging from 0.03 to 0.06 ft/day. Using this range of values and hydraulic gradient, the rate at groundwater flow was calculated. Assuming a range of effective porosity of 10-30 percent, groundwater flow rates range from 0.3 feet/year to 0.9 feet/year. Calculations are provided on Table 5.

Water Well Survey

In 2001, an investigation was performed to identify water supply wells located within one mile of the PCA landfill site. The investigation included reconnaissance by a JJG geologist to identify

wells, an interview with Perry County Commissioner and City of Uniontown officials, a review of GSA publications, and an interview with Chris Jung of ADEM. Due to the great depth (500-600 feet), few wells have apparently been drilled in rural Perry County. Fourteen wells were identified within one mile of the PCA site, and nineteen were identified in the township where the site is located.

In an effort to update the Site Acceptability report, another site reconnaissance was performed by a JJG geologist to identify wells located within one mile of the proposed landfill. The reconnaissance was performed on May 19, 2005. No additional wells were identified during the reconnaissance. Figure 10 indicates the locations of the wells identified with one mile of the PCA landfill site. Table 6 provides details on construction and depth of wells.

A recent document entitled "Uniontown Utilities Local Wellhead Protection Plan" (Layne, 1998) describes water supply and use in Uniontown and the vicinity. A municipal system, which is supplied by three wells located in town, serves the community. The wells are located upgradient and/or cross-gradient more than one mile from the PCA site. The supply system serves the residents of Uniontown plus rural residents within about five miles of town. According to Uniontown officials, drinking water is supplied to all residents near the PCA landfill site from wells in town. Eight of the fourteen wells located within a mile of the site are either not in use or supply water for agricultural purposes. Well number V-8 (Figure 10) is located adjacent to the PCA landfill site, across County Road 1. The well is 850 feet deep and was originally drilled for agricultural and domestic use for a dairy farm. The farm is no longer worked and the well no longer used. The residences along County Road 1 are all served by Uniontown Utilities. Similarly, well V-7 is 530 feet deep and is located east and cross gradient of the PCA site. The well is no longer in use and the residence is supplied by Uniontown Utilities. Well V-4 is 950 feet deep, is located northwest of the site and no longer used. The remaining three wells identified within a mile of the PCA landfill site are situated along U.S. Highway 80. Two are Uniontown Utilities wells (Numbers V-2 and V-3), and are 915 and 1300 feet deep, respectively. The other is a private supply well located about one-half mile east of wells V-2 and V-3 and supplies a catfish farm and a residence.

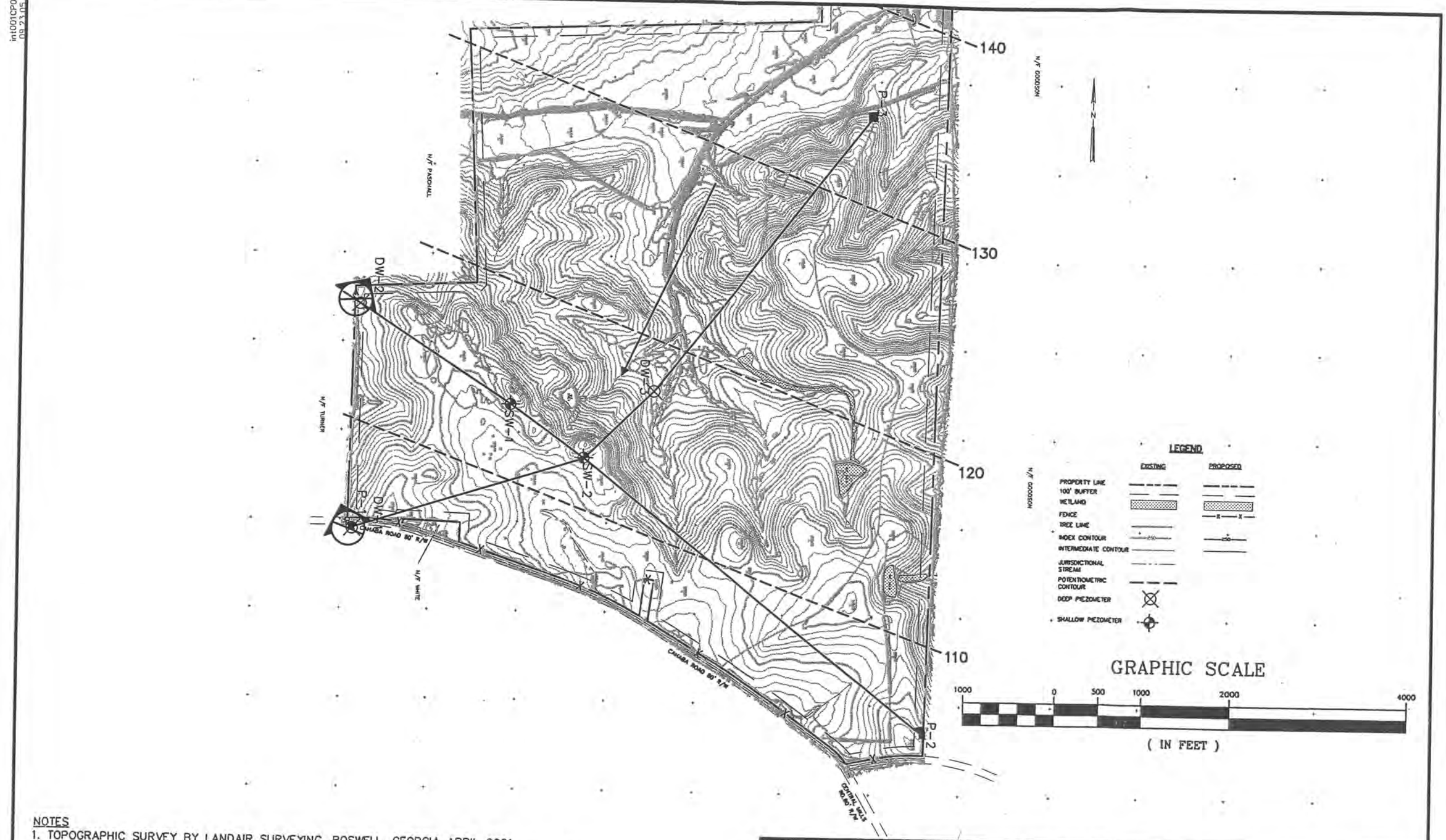
In 2001, Chris Jung of ADEM identified eight wells within a one-mile radius of the site. These wells are identified as P1 through P8 on Figure 10. Local residents or neighbors verified that wells P2, P4, P5, and P8 are in use and wells P3 and P6 are not in use. According to the Perry County Commissioners Office, all of the residences along County Road 1 where these wells have been identified received drinking water from the Uniontown Utilities system. The status of wells P1 and P7 is unknown. Well construction details were not available for wells P1 through P8.

Summary of Soil Test Results

Boring No.	Depth	Sample Type	Atterberg Limit ASTM D422			Natural Moisture Content ASTM D2216	Amount of Fines ASTM D422	Unified Soil Classification ASTM D2487	Specific Gravity ASTM D854	Organic Content ASTM D2974	Cation Exchange Capacity	Dry Bulk Density	Vertical Permeability ASTM D5084
			LL	PL	PI								
			%	%	%	%	%		Gs	%	Meq/100 ML	PCF	CM / SEC
P-1	38.5'-40'	UD	56	26	30	19.8	96	CH	2.669	2.05	14.1	85.5	2.60E-08
P-2	28.5'-30'	UD	59	21	38	13.1	94	CH	2.673	1.44	16.4	105.9	4.60E-08
P-3	38.5'-40'	UD	58	21	37	24.8	86	CH	2.669	2.48	18	94.8	7.30E-09

Notes:
Samples collected May 1 and 2, 2001 by JJ&G.
See Figure 2 for boring locations.
Laboratory Report provided in Appendix J.

int001CP03.dwg 5/23/01



NOTES
1. TOPOGRAPHIC SURVEY BY LANDAIR SURVEYING, ROSWELL, GEORGIA APRIL 2001.
   BOUNDARY AND WELL LOCATIONS BY JORDAN, JONES & GOULDING, INC. (APRIL–MAY 2001).
2. ELEVATIONS ARE FEET ABOVE MEAN SEA LEVEL NAD – 1983

Jordan Jones & Goulding

LANDFILL SITE ANALYSIS
PERRY COUNTY ASSOCIATES

LOCATION OF PIEZOMETERS AND CROSS SECTIONS

DATE : JUNE 2001
SCALE : AS SHOWN
JOB NO.: 4305.001

FIGURE 6

int001CS04.dgn 09.23.05

PL DW-2 | SW-1 | SW-2 | P-2 PL

300
200
100
0
-100
-200
-300
-400

ELEVATION (FEET, MSL)

DRY (SW-1)

DRY (SW-2)

DRY (P-2)

(DEPTH INFERRED FROM SECTION B-B')

(DEPTH INFERRED FROM POTENTIOMETRIC SURFACE MAP)

SELMA GROUP

DEMOPOLIS AND MOOREVILLE CHALKS
LIGHT GRAY TO MEDIUM YELLOWISH GRAY
FOSSILIFEROUS CHALKY, CHALKY MARL,
AND CLAYEY CHALK.

SAND

SAND/GRAVEL

EUTAW FM.

LIGHT-GREENISH GRAY TO YELLOWISH GRAY
WELL SORTED, CROSS-BEDDED, FINE TO MEDIUM-
GRAINED GLAUCONITIC MICACEOUS SAND.

DATUM ELEV
-500.00

0+00 6+00 12+00 18+00 24+00 30+00 36+00 42+00 48+00 54+00 60+00 66+00 72+00 78+00

LEGEND

BORING
WELL CASING

WELL
SCREEN

GROUND SURFACE

GEOLOGIC CONTACT
DASHED WHERE INFERRED

POTENTIOMETRIC SURFACE

SCALE

HORIZONTAL: 1" = 600'
VERTICAL: 1" = 100'

T.WANG

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LANDFILL SITE ANALYSIS
PERRY COUNTY ASSOCIATES

CROSS SECTION A - A

DATE : JUNE 2005
SCALE : AS SHOWN
JOB NO.: 4305.001

FIGURE 7

int001CS05.d
09.23.05

PL DW-1 P-1 SW-2 DW-3 P-3 PL

300
200
100
0
-100
-200
-300
-400

ELEVATION (FEET, MSL)

DRY
DRY
DRY

(DEPTH INFERRED FROM POTENTIOMETRIC SURFACE MAP)

SELMA GROUP

DEMOPOLIS AND MOOREVILLE CHALKS
LIGHT GRAY TO MEDIUM YELLOWISH GRAY
FOSSILIFEROUS CHALKY, CHALKY MARL,
AND CLAYEY CHALK.

CLAYEY SAND, GRAVEL

SAND

EUTAW FM.

LIGHT-GREENISH GRAY TO YELLOWISH GRAY
WELL SORTED, CROSS-BEDDED, FINE TO MEDIUM-
GRAINED GLAUCONITIC MICACEOUS SAND.

DATUM ELEV
-500.00

0+00 6+00 12+00 18+00 24+00 30+00 36+00 42+00 48+00 54+00 60+00 66+00 72+00 78+00

LEGEND

BORING
WELL CASING
WELL SCREEN

GROUND SURFACE
GEOLOGIC CONTACT
DASHED WHERE INFERRED
POTENTIOMETRIC SURFACE

SCALE

HORIZONTAL: 1" = 600'
VERTICAL: 1" = 100'

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LANDFILL SITE ANALYSIS
PERRY COUNTY ASSOCIATES

CROSS SECTION B – B

DATE : JUNE 2005
SCALE : AS SHOWN
JOB NO.: 4305.001

FIGURE 8

TWANG